

"Dedicated to Public Service"

THE RADIATOR



W6RHC
IRL #8170
Echolink #322788



<http://www.gearsw6rhc.org>

P.O.Box 508 Chico, CA 95927-0508

Founded: August 13, 1939

January 2016

Coming Events

O.A.R.S. GENERAL MEETING

Second Friday, every month, at 7:00 p.m., at St. Paul's Church Parrish Hall, 1430 Pine St., Oroville

G.A.R.S. Second Thursday every month, 4:30 p.m. Lutheran Church Hall, Artois; 4:30 p.m.

G.E.A.R.S. General Meeting, third Friday every month, at Butte County Search and Rescue Building, Chico. Social hour at 6:30, meeting at 7:00. Board Meetings: 2nd Saturday each month @2:00 p.m.

Butte A.R.E.S. MEET: fourth Friday, monthly, at Butte County Search and Rescue Building.

FCC EXAMS - GEARS VEC

First Sunday of every even numbered month.

At the Butte County Search and Rescue Building. Written test at 2:00 p.m. For information or pre-registration call Tom Rider -W6JS; 530-893-9211

Club Events: News and items of interest
GEARS Calendar...all inside.

Website: www.gearsw6rhc.org
www.gearsw6rhc.org



Picture courtesy EVARC

The Prez' Says:

QST de KA6GND



Happy New Year everyone! I look forward to serving as your club president this year, looking at this as a privilege and honor to fill this position in our club that has been a large part of the amateur community since 1939. We have a rich heritage of some amazing amateurs that have filled the airwaves with their voices, code and other modes both now and in years gone by.

I encourage you to contact me or the other Board members with your ideas and suggestions in what GEARS means to you, what you hope for and how you would like to be a part of our club. I intend to lead the club in growing in membership, participation and outreach into the local communities. One of the ways to do this is that I commit to making our monthly meetings fun, educational, inspiring and memorable.

Our club is blessed to currently have 70 members. If we were to accumulate the years of knowledge and experience on the air and at the workbench we would be amazed. I hope that we can make the most of these talents to help each other, to foster friendships on and off the air, and very importantly to help the new Hams to learn and experience all that they can in this incredible hobby that we are part of.

(continued page 2)

We will be changing a bit in that the Board meetings will now be held on the 2nd Saturday of each month at 2:00 pm. The January Board meeting will be held on Saturday the 9th at Blood Source, 555 Rio Lindo Ave. All members are welcome and encouraged to attend Board meetings.

At the General Meetings on the 3rd Friday each month I encourage you to show up for social eye-ball QSO's and rag-chewing in with others starting at 6:30. The meeting will start promptly at 7:00 with lots of fun, information, interaction and guest speakers.

If there are areas that you would like to help out in our club please let me know. The Board members cannot do it all. Helen Keller once said, "Alone we can do so little, together we can do so much." Let's join together in raising our club and amateur radio in the area to new heights, let's crank the tower ALL of the way up together. As some of you know, I recently installed an 80' crank-up tower at my QTH. But did "I"? No, but with the help of many of you it now stands proudly among my pine trees. The first day we soon found that there were not enough of us to raise it up. The next day, with more willing Hams present it was a much easier task and we had fun working together toward a goal. Our club is the same way -we can join together in raising GEARS to new heights.

We are fortunate to have very good club repeaters on 2 meters and 440 with a wide coverage area. Be sure to I.D. when you are monitoring, you just never know who else is out there monitoring, ready to have a QSO! The Tuesday night net on the 2 meter repeater can only be as good as

those that check-in and participate - let's share our ham activities there!

"See" you on the air -

Larry Marcum, KA6GND,
GEARS President



My new tower, and below, the hard working crew.
Thank you all!



Board of Directors Meeting: Dec 18 2015

ATTENDANCE Scott Peterson and Tom Rider not present.

MEMBERSHIP APPLICATIONS: Renewals: Don Mathison, Russell Schermer and Maddox.

1. Bills: As of Dec 17, 2015, GEARS' balances are:
 2. Rabobank: \$3,860.00
 3. ARES On-Deposit: \$1,000.00
 4. Unencumbered: \$2,860.00
 5. In November 2015, a Domain Registrar account was opened in GEARS' name at GoDaddy.
 6. Two new domains were registered:
 7. gearsw6rhc.net
 8. gears6rhc.com
- The existing domain name (gears6rhc.org) was transferred from Stephen McDermott's private GoDaddy account to the club's GoDaddy account.
1. No disruption in service
 2. Request a Board Resolution for formal authorization for the Treasurer (or, Treasurer's designee) to remit payment for three routine bills:
 3. Monthly AT&T bill for landline to repeater,
 4. Monthly PG&E bill for repeater, and
 5. As needed, purchase of USPS stamps.
 6. Request Board Approval for the Treasurer to remit \$130.00 to USPS for annual rental of PO Box 508.
 7. Request Board Approval to reimburse Gene for 1 hat and 1 badge, total = \$21.02.
 8. Because our Rabobank account is subject to a sometimes waivable monthly fee (currently, \$10/month, or \$120/year) Request Board Authorization for the Treasurer to explore establishing another banking relationship that would not incur such fees. Dick Wolstenholm has requested that he be replaced as the repeater licensed trustee. We will place it in the Radiator for those who wish to apply.

ADJOURNMENT: 19:02 hr.

Dale Anderson,
Secretary

MINUTES OF GENERAL MEETING for Dec 18 2015

PROGRAM: Xmas party.

ATTENDANCE: Scott Peterson not present.

ANNOUNCEMENT: Larry Marcum for president, Stephen Wolske for vice-president, Rick Hubbard for treasurer, Dale Anderson for secretary. For the board members Tom Rider, Gene Wright, Raymond Foulks.

VEC: none.

MINUTES: none

TREASURER: Current balance of \$2,860.00

OLD BUSINESS: none

NEW BUSINESS: none

ADJOURNMENT: 20:11 hr.

Dale Anderson,
Secretary



2016 Officers also two members continuing service in volunteer /non elective slots



Larry Marcum -KA6GND
President



Stephen Wolske -KF6HSS
Vice President



Dale Anderson-KK6EVX
Secretary



Rick Hubbard-KI6VOS
Treasurer



Tom Rider—W6JS
Board' member



Gene Wright WA6ZRT
Board member



Raymond Foulks—KG6MRK
Board member



Anna Horn KG6ZOA-
Past President

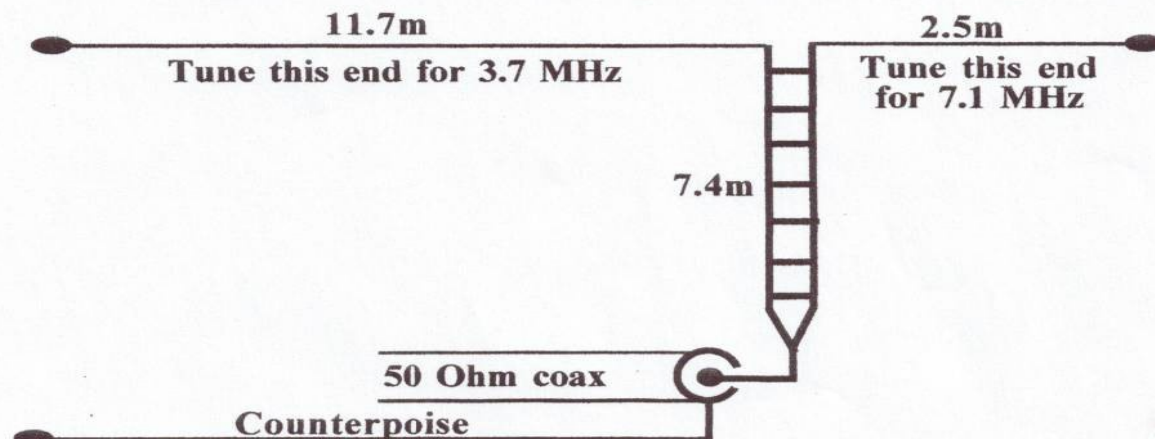


Tom Rider W6JS—VEC



Stephen McDermott- W6AKF
Membership Chairperson

G7FEK LIMITED SPACE ANTENNA



This is a 46ft antenna for small yards that works well on 80/40/30/17/12m. Other bands need a tuner. This antenna was first conceived as a simple dual band antenna in 1988, in an attempt to achieve sensible dual band operation in a small garden of 46 ft length. Evolving from a simple end-fed Marconi for 80m, the idea was to use the opposing harmonic relationships of two $\frac{1}{4}$ wave elements so that they could be fed on odd harmonics without mutual coupling.

This principle has been used with nested dipole antennas and other specialist multi-band antennas such as the Cobweb, but because of interaction and coupling issues, it's rarely implemented on end fed wire antennas. With this version of the antenna, interaction between elements and top resonance have been turned to advantage allowing for excellent multi-band working, while maintaining a useful radiation pattern and efficiency on almost all Amateur Radio bands.

The suggested dimensions provide for low radiation angle (30 to 40 degrees) on all bands except 30m where the antenna acts as a full size horizontal dipole. Low VSWR is achievable on most bands and, with careful construction, up to four bands can be used without ATU. Radiation resistance is in the range 25 to 200 ohms on all bands, ensuring high radiation efficiency, even with moderate earthing arrangements.

Unlike the Windom or G5RV, the fundamental bands can be resonated independently. This antenna allows anyone to achieve an effective full size 80m antenna in a small garden with excellent low angle DX performance, closely matching a full size dipole installed at the same height.

Mike Dennis G7FEK

Westlakes Amateur Radio Club Inc.- Magazine November 2015

What would Wayne (Green) do?

By Dan Romanchik, KB6NU

Wayne Green was a crackpot...but he was a great one.

For those of you who aren't as old as I am, Wayne Green, W2NSD, was not only the publisher of 73 Magazine, but also the founder of Byte and other PC magazines in the early days of personal computing. In 73, he would write these long, rambling editorials. Often, he would take the ARRL to task, criticizing what he thought to be some lunk-headed policy or another.

Just as often, he'd be encouraging hams to take up some new technology. He was, for example, one of the guys driving hams to set up repeater systems.

He would often exhort hams to get started in their own technology-related business. I remember one column where he urged hams to get involved in the home-security business. And, of course, when personal computers became popular, he wrote that hams should think about getting into that business. His reasoning was that our knowledge of electronics would stand us in good stead in those businesses.

Today, I think that he would be telling us to get more involved in with technologies like the Internet of Things, WiFi, or whatever other wireless technology is coming down the pike. "Wireless" is the key word here. These networking technologies are based on good, old radio, and who better to push these technologies forward than guys like us who understand radio.

This point was brought home to me last week as I was interviewing an executive of a wireless company for an article that I'm writing. He said to me that many of the companies he works with are taking a software-centric view to their wireless products. They simply use the reference designs provided by the wireless chip makers and expect those designs to work flawlessly in their products.

While they often do, he gave me an example where simply using the reference design was a colossal failure. In one case, he said, the company mounted the board inside a metal enclosure. Since the antenna was part of the printed-circuit board, the enclosure acted like a shield, and of course, the device had little or no range.

He went on to say that he thought that there was a real shortage of experienced RF guys in the wireless industry. Does that sound like an opportunity to you? It does to me. So, I'm going to make like Wayne Green here and exhort all you guys to get out there and take advantage of it.

(continued on page 8)

DENNIS POWERS, AB6QR

TO PRESENT JANUARY PROGRAM

Program topic:

**Operating QRP with HF
At very low power.**

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KB6NU continued from page 7)

This is not only a business opportunity, but a way for amateur radio operators to fulfill a couple of the “purposes” of amateur radio, as set forth in Part 97.1 of the amateur radio regulations. Part 97.1(b) says that one of the purposes of the Amateur Radio Service is “Continuation and extension of the amateur’s proven ability to contribute to the advancement of the radio art.” According to Part 97.1(d), another purpose of the Amateur Radio Service is “Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.”

Let’s Do It!!

Dan-KB6NU

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JUST IN TIME DISASTER TRAINING VIDEOS

The Disaster Resistant Communities Group publishes “Just In Time Disaster Training” videos, which can be found on their website. Most of their videos are hosted on You Tube. Some of the videos are Interoperable Communications, WINLINK, and Text Messaging During Emergencies. The site lists 221 different videos. The web page to view the videos and a complete listing is at:
www.drc-group.com/project/jitt.html.

(From the ARRL The ARES ELetter for December 16, 2015-via Valley Ham News-YSARC)

KIDS DAY

The first Kids Day of 2016 will be Sunday, Jan. 3rd from 1800 to 2400 UTC (that's 0800 to 1600 PST).

This twice yearly event, sponsored by the ARRL and The Boring Amateur Radio Club, (located in Boring, Oregon-yes, that really is the name of the community -I have been there-a lovely community-Ed.dj) is an excellent opportunity to showcase Amateur Radio and Amateur Radio satellites to youngsters.

Hand over the keys so they can get some hands-on experience. To solicit contacts call "CQ Kids Day." The suggested exchange is name, age, location, and favorite color.

There is no limit on operating time, and stations may work each other more than once if the operator has changed. Observe third-party traffic restrictions when making DX contacts.

(From the ARRL newsletter for Dec. 24th -& VHN news, YSARC)

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Winter Field Day Association

“Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done each summer but with some additional unique operational concerns.

We believe as do those entities of ARRL Organizations like ARES & RACES that maintaining your operational skills should not be limited to fair weather scenarios. The addition of a Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFDA is open to all licensed amateur radio operators worldwide.

Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental conditions found in the US and Canada during the spring, summer, fall, and winter.

Preparedness is the key to a professional and timely response during any event and this is what local and state authorities are expecting when they reach out to the emergency service groups that offer their services.

If you are serious about emergency communications as we are; we welcome you to join us for our yearly event. We are sure that you will find this event a pleasant change and challenge to that of a normal summer time field day.

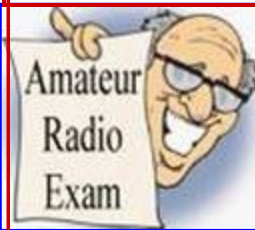
First held during January 2007; The Field Day is still held on the last full weekend of January.

GEARS attempted –twice-to participate in Winter Field Day. The logistics just did not work out well. But for the “hardy” the opportunity beckons.

Winter Field Day Association
www.winterfieldday.com



Brrrrrr.....only for the very hardy!



Caps embroidered with your name and your call sign may be ordered by contacting WA6ZRT -Gene Telephone #530 -345-3515

VEC TESTING

2:00 p.m.

February 7, 2016

April 3, 2016

AT BUTTE COUNTY SEARCH & RESCUE BUILDING

All Classes

Technician, General and
Extra.

Contact:

Tom Rider-W6JS



530-893-9211

Rustyboy rider@aol.com

GEARS 2016 MEETING DATES**General Meeting 3rd Friday –each month; Board meeting 2nd Saturday**

Friday, January 15
 Friday, February 19
 Friday, March 18
 Friday, April 15 *
 Friday, May 20
 Friday, June 17
 Friday, July 15
 Friday, August 19
 Friday, September 16**
 Friday, October 21
 Friday, November 18
 Friday, December 16

* Wildflower Cycling Event

** GEARS host for 2016 Steakbake Saturday September 17; JOTA– September

VEC TESTING—2016**The First Sunday of every even numbered month**

Sunday, February 7
 Sunday, April 3
 Sunday, June 5
 Sunday, August 7
 Sunday, October 2
 Sunday, December 4

GARS MEETINGS 2016**The second Thursday of every month**

Thursday January 14
 Thursday February 11
 Thursday March 10
 Thursday April 14
 Thursday May 12
 Thursday June 9
 Thursday July 14
 Thursday August 11
 Thursday September 8
 Thursday October 13
 Thursday November 10
 Thursday December 8

OARS 2016 MEETING DATES**The Second Friday—each month**

Friday, January 8
 Friday, February 12
 Friday, March 11
 Friday, April 8
 Friday, May 13
 Friday, June 10
 Friday, July 8
 Friday, August 12
 Friday, September 9
 Friday, October 14
 Friday, November 11
 Friday, December 9

BUTTE ARES MEETINGS - 2016**The fourth Friday monthly—(subject to changes)**

Friday, January 22
 Friday, February 26
 Friday, March 25
 Friday, April 22
 Friday, May 27
 Friday, June 24*
 Friday, July 22
 Friday, August 26
 Friday, September 23
 Friday, October 28
 Friday, November 25**
 Friday, December 23***

- *Field Day 2016: June 25/26,
- ** Thanksgiving is Thursday 24,
- ***Christmas is Sunday, December 25, this meeting could be subject to cancellation
- Possible the above dates could be cancelled.

The GEARS Newsletter Staff:**Editor and Publisher**.....Dorothy Post**Printing & Distribution** snail mail: Evelyn Weir**Website**...Stephen McDermott W6AKF

The Radiator is a monthly publication of the Golden Empire Amateur Radio Society (GEARS). It is the policy of the Editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio, of interest to GEARS members, and space is available. Please send all submissions to the Editor – Dorothy Post by the last day of the month through the following medium: E-mail: dj@posthouse.us

Club Officers: (Board of Directors)**President**Larry Marcum-ka6gnd**Vice President**..... Stephen Wolske-kf6hss**Secretary** Dale Anderson-kk6evx**Treasurer**.....Rick Hubbard-ki6vos**Past President**Anna Horn Kg6goa**Director**..... Tom Rider-W6JS**Director**.....Gene Wright-wa6zrt**Director**.....Raymond Foulks-kg6mrk**Club Meetings****General Meeting** Third Friday 7:00 PM**Board Meeting** Third Friday 6:30 PM**GEARS Club Net****Tuesdays** 8:00 PM 146.850 MHz-PL 110.9

GARS Club Net: Monday, 19:30 147.105+Mhz
PL 110.0

Sacramento Valley Traffic Net**Nightly** 9:00 PM 146.850 MHz-PL 110.9**ARES Nets:****Butte** Mondays 20:00 146.850 MHz-PL 110.9**Yuba Sutter** Thursdays 19:00 146.085+MHz PL 127.3**Glenn** Thursday 19:30 147.105 MHz +PL 100.0**Other Nets:**

Sac Valley Section Net—7:00 PM 2nd Wed of the
month 146.085 MHz+PL 127.3

440 Wed. Night 8:00 PM Wednesday 440.650 MHz**Golden Bear** 7:00 PM Daily 3975 kHz**Willie Net** 8:00 PM Mondays 1930 kHz**Western Public Service System (WPSS)****Winter** 5:00 – 7:30 PM 3952 kHz**Summer** 6:00 – 8:30 PM 3952 kHz

ARISS (International Space Station) Uplink 144.490
MHz Downlink 145.800 MHz

Hope-1 satellite: all uplinks are in 145Mhz band:

All downlinks are in 435Mhz band

...California Traffic Net: 3906 KHz nightly @6:00 pm

For traffic listing & @6:30 p.m. for roll call.

ARRL National Exams Twice Yearly

ARRL sponsored national exam day week-ends are held annually on the last full weekends of April and September.

The April National exam day weekend is April 23-24, 2016. Fall nation

Fall National exam day weekend Is September 24-25, 2016.

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Current Amateur Radio Question Pools

Each question pool is reviewed and updated on a four year rotation. The three current question pools are valid as follows:

Technician Class (Element 2) pool effective July 1, 2014 valid to June 30, 2018.

General class (element 3) pool effective July 1, 2015, valid to June 30, 2019.

Amateur Class Extra (element 4) pool effective July 1, 2012 valid only to June 30, 2016.

A new Amateur Extra class (Element 4) pool will take effect July 1, 2016, and will be valid to June 30, 2020.

The foregoing from January 2016 QST Magazine, page 99. Go to this referenced entity for more in-depth information.

Date	Time	Event	Location	Contact party
Sunday, February 7, 2016	2:00 p.m.	VEC—Exams	Butte Co. Search & Rescue Building 2591 Morrow Lane, Chico	Tom Rider 530-893-9211
Thursday January 14, 2016	4:30 p.m. Board and General Meeting .	GARS-Glenn Glenn Amateur Radio Society General Meeting, & Amateur Radio Emergency Services	Lutheran Church Hall: 565 Main Street Artois	Albert Leyva 530-567-5979
Friday, January 8, 2016		OARS Oroville Amateur Radio Society General Meeting	St Paul's Church Parrish Hall 1430 Pine Street Oroville	Ron Osborne-kd7uhf 530 589 1834 kd7uhf@yahoo.com
Friday January 15, 2016 Saturday Jan 9th	General Meeting 7:00 Social 6:30 p.m. Board meet: 2:00 Blood Source Bldg 555 Rio Lindo Ave.	GEARS Golden Empire Amateur Radio Society General Meeting	Butte County Search and Rescue Building 2591 Morrow Lane Chico	Larry Marcum, KA6GND 530 345 5399 ka6gnd@gmail.com

